ARIS research projects in progress

ARIS	Project number	Title	Responsible person / Project coordinator on the Faculty of Mechanical Engineering	Duration
		Development of multifunctional high-tech yarns – HTF yarns	Assoc. Prof. Dr. Vanja Kokol vanja.kokol@um.si	1.11.2026 – 31.10.2028
	J2-70097	Advanced platform for development and biological testing of anti-inflammatory nanofibrous materials for healing immunologically dysregulated skin lesions	Assist. Prof. Dr. Selestina Gorgieva selestina.gorgieva@um.si	1.10.2026 – 31.8.2029
	J2-70090	Sustainable recovery of strategic and critical raw materials from e-waste touchscreens and printed circuit boards using biopolymer-based magnetic nanocomposites and their application as electrochemical sensors for endocrine disruptors in the environment	Assist. Prof. Dr. Olivija Plohl olivija.plohl@um.si	1.3.2026 – 28.2.2029
	J2-70109	Sustainable yarn manufacturing technologies with high-performance passive cooling for thermal comfort management	Assoc. Prof. Dr. Vanja Kokol vanja.kokol@um.si	1.3.2026 – 28.2.2029
	GC-0007	Sustainable technologies for circular waste and energy management in the fight against climate change	Prof. Dr. Željko Knez/ Prof. Dr. Aleksandra Lobnik aleksandra.lobnik@um.si	1.7.2025 – 30.6.2028
	J7-60118	Human Exposure to Radiation from new Wireless Communication Technologies using Advanced Electromagnetic-Thermal Dosimetry Models	Prof. Dr. Jure Ravnik Jure.ravnik@um.si	1.2.2025 – 31.1.2028
	J2-60048	Development of anisotropic thermally conducting and insulating substrates for recyclable flexible electronics	Assoc. Prof. Dr. Vanja Kokol vanja.kokol@um.si	1.1.2025 – 31.12.2027
	J2-60049	Development of Advanced Cellular Metamaterials	Assist. Prof. Dr. Nejc Novak nejc.novak@um.si	1.1.2025 – 31.12.2027
	J7-60120	Design, development, and characterisation of innovative biodegradable vascular stents	Prof. Dr. Janez Kramberger janez.kramberger@um.si	1.1.2025 – 31.12.2027
	L2-60138	Self-learning collaborative welding application	Assist. Prof. Dr. Timi Karner timi.karner@um.si	1.1.2025 – 31.12.2027

ARIS	Project number	Title	Responsible person / Project coordinator on the Faculty of Mechanical Engineering	Duration
	N2-0328	Effect of temperature conditions on the microstructure and mechanical properties additively manufactured materials	Prof. Dr. Damjan Klobučar/ Prof. Dr. Franc Zupanič franc.zupanic@um.si	1.1.2024 – 31.12.2027
	Z2-60175	Efficient bacterial cellulose-based anion exchange membranes for alkaline fuel cell applications	Dr. Maša Hren masa.hren@um.si	1.1.2025 – 31.12.2026
	N2-0388	Novel approach to acquire UltraPURE nanoCELLulose	Senior Research Fellow Dr. Selestina Gorgieva selestina.gorgieva@um.si	1.1.2025 – 31.12.2026
	N2-0326	Experimental and numerical analysis of static and fatigue double-side bending of rubber matrix composites	Prof. Dr. Jernej Klemenc/ Prof. Dr. Srečko Glodež srecko.glodez@um.si	1.1.2024 – 31.12.2026
	J2-50086	Nanofibrilar cellulose membranes in microbial fuel cells: material development for sustainable, high value-added applications	Senior Research Fellow Dr. Selestina Gorgieva selestina.gorgieva@um.si	1.12.2023 – 30.11.2026